UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/823,084	03/29/2001	Christian R. Thomas	42390P10460	7001

8791 7590 04/28/2004

BLAKELY SOKOLOFF TAYLOR & ZAFMAN
12400 WILSHIRE BOULEVARD, SEVENTH FLOOR
LOS ANGELES, CA 90025

EXAMINER	
GARG, YOGESH C	

ART UNIT	PAPER NUMBER
3625	

DATE MAILED: 04/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/823,084	THOMAS ET AL.
	Examiner	Art Unit
	Yogesh C Garg	3625

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 March 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation " interacting with a client by exchanging information with a communication proxy specified by said client ", which stands alone as having no relation with the other two limitations recited in claim 1, which are directed to registering a broker and transmitting metatdata to said broker. It appears that there is a missing step connecting the step of interacting with a client and the other two steps of registering a broker and transmitting metatdata to said broker. Since claims 2-6 are dependencies of claim 1 they also inherit the same deficiency.

Claim 6 recites the limitation "interacting with **an Internet service**... ", which stands alone as if having no relation with the other limitation " "requesting a desired Internet service, by a client.....". It is unclear if interacting is done with another Internet service or the earlier referred desired Internet service. As best understood by the examiner, the limitation, "interacting with **an Internet service**... " should be changed to --- interacting with **the said desired Internet service**... " and will be treated further on

merits accordingly. Since claims 7-12 are dependencies of claim 6 they also inherit the same deficiency.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-5 are rejected under 35 U.S.C. 102(e) as being anticipated by Graham et al. (US Patent 6,594,700 B1), hereinafter, referred to as Graham.

Regarding claim 1, Graham discloses a method comprising:

registering with a broker (see at least col.6, lines 1-49, "*FIG. 4 is a conceptual diagram of a universal service broker interchange mechanism (USBIM), depicting interaction between the functional elements needed for brokering an interface between a service provider and a client needing service. In diagram 400, clients 410, 412 and 416 represent clients requiring a service. ..... In accordance with the present invention, internal registry 402 is an internal registry providing rapid in-memory* ***access to a database of service registrations. The preferred embodiment of these service registrations utilizes Extensible Markup Language (XML) documents.*** *.....* ". Note: Graham discloses that services are registered with the USBIM, which corresponds to a broker.(;

transmitting metadata, to said broker, describing at least one of communication proxies, supported protocols, service, and proxy Iodations', (see at least col.6, lines 1-49, " *FIG. 4 is a conceptual diagram of a universal service broker interchange*

mechanism (USBIM), ... The preferred embodiment of these service registrations utilizes Extensible Markup Language (XML) documents. .... In the present invention, service providers 420, 422 and 424 advertise services in the same manner as those of prior art; however, ... internal registry adapter servlets intercept the advertisement. Specifically, service provider protocol adapter servlets 406, which are componentized mechanisms based on servlets, listen for service advertising requests. Each protocol is associated with a different servlet that understands the details of the service advertising mechanism unique to that protocol. The unique protocol of the service provider is converted to a canonical representation of the service provider advertisement. .....Each time a new service provider advertises a new service or updated service, service provider protocol adapter servlets 406 convert the service provider's unique protocol into a canonical representation and update internal registry 402 with the new service information. At any one time, internal registry 402 contains an index of canonical representations of service advertisements from service providers 420, 422 and 424. ". Note: The information received from the service providers about protocols of the advertising services corresponds to transmitting metadata to broker. Also see col.6 line 50-col.9, line 30) and

interacting with a client by exchanging information with a communication proxy specified by said client (see at least col.6, line 66-col.7, line 38, " *Clients 410, 412 and 416 may request a service using their own unique client protocol. However, as the advertisements for the services are stored in a canonical representation within internal registry 402, protocol adapter servlets are required for conversion of the client protocol to the canonical representation. Client protocol adapter servlets 404, which function similarly to the service provider protocol adapter servlets 406, are componentized mechanisms based on servlets, that listen for client lookup requests. As with service provider protocol adapter servlets, a different client protocol adapter servlet handles the details of client lookup for each protocol. Client protocol adapter servlets convert the client request in the requesting client's protocol to a canonical representation of the request. In addition, client protocol adapter servlets 404 also search internal registry 402 for the requested service advertisement in the index of service*

provider advertisements, and respond back to the requesting client with the results of the search using the client's request protocol. Associated with the client lookup mechanism is the ability to broker the mechanism of client-service provider interaction. For example, consider a printer service advertised using the UPnP protocol, specifying it supports the LPR: protocol. If a matching Jini-based client lookup request is received, it is the responsibility of the client servlet to generate a marshalled Object (analogous to a network device driver) that has an implementation of the appropriate Java interface corresponding to LPR:. This area has the greatest potential for incompatibility within the interchange mechanism. For example, Jini service providers implementing arbitrary Java interfaces are not available to, for example, UPnP clients, unless there is a description of the Service: Name: protocol associated with the Jini service. In effect, the client protocol adapter servlet brokers an interchange mechanism between the requester client and the service provider. In the case of brokering a UpnP-based service to a Jini client, this is accomplished by providing a Java interface and implementation based on the Service: Name: protocol associated with the service provider to the requesting client. ".Note: Client protocol adapter servlet 404 correspond to the claimed " communication proxy" which interacts with client by exchanging information about a service requested by the client. The client protocol adapter servlet 404 (communication proxy), **on behalf of the client ,**handles the details of client lookup for each protocol (client specifies the protocol it supports, see the example of printer service) searches internal registry 402 for the requested service in the registry and responds back to the client with the results of search using the client's request protocol .

Regarding claim 2, Graham discloses a method as disclosed in claim 1. Graham further suggests that interacting comprises exchanging information with a communication proxy at a node local to said client (see Fig.4 where client protocol

adapter servlet 404 is at a local node. It is already analyzed and discussed in claim 1 above that client protocol adapter servlet 404 corresponds to a communication proxy, where it, **on behalf of the client ,**handles the details of client lookup for each protocol (client specifies the protocol it supports, see the example of printer service) searches internal registry 402 for the requested service in the registry and responds back to the client with the results of search using the client's request protocol) .

Regarding claim 3, Graham further discloses that in claim 1, the describing comprises: specifying at least one of Java, common language runtime (CLR), component object model (COM), and Win32 binaries (see at least col.5, lines 38-52, and col.7, lines 20-32 and lines 49-58, wherein Graham discloses use of Java interface and component object model. The limitation in claim is directed to any one choice out of Java, common language runtime (CLR), component object model (COM), and Win32 binaries and Graham at least discloses use of two of them, thereby anticipating the claimed limitation).

Regarding claim 4, Graham further suggests that the method in claim 1, wherein describing comprises: specifying at least one of hypertext transfer protocol (HTTP), simple mail transfer protocol (SMTP), simple object access protocol (SOAP), secure sockets layer (SSL/HTTPS), and secure HTTP (S-HUP) (see at least col. 6, lines 19-27, 50-65,col.7, line 50-col.8, line 5, which disclose use of XML and SOAP , is a lightweight

protocol for exchange of information based on XML, hence use of SOAP is inherent wit the use of XML based services).

Regarding claim 5, Graham discloses that the method as in claim 1, wherein transmitting metadata comprises: sending one of extensible markup language (XML), hypertext markup language (html), text file, and binary (see at least col. 6, lines 19-27, 50-65,col.7, line 50-col.8, line 5, which disclose use of XML based services).

Regarding claim 6, Graham discloses a method comprising::

requesting a desired Internet service, by a client, to a broker, including a desired communication proxy and, optionally, a desired application-level protocol , receiving metadata from said broker, receiving said desired communication proxy; and interacting with an Internet service using said desired communication proxy (see at least col.6, line 1-col.9, line 40. The limitations are closely parallel to the limitations of claim 1 and is therefore analyzed and discussed based on the same rationale.) .

Regarding claim 7, Graham discloses that the method as in claim 6, wherein receiving said desired communication proxy comprises:

downloading said desired communication proxy to a node local to same client (see Fig.4 where client protocol adapter servlet 404 is downloaded at a local node. It is already analyzed and discussed in claim 1 above that client protocol adapter

servlet 404 corresponds to a communication proxy, where it, **on behalf of the client** ,handles the details of client lookup for each protocol (client specifies the protocol it supports, see the example of printer service) searches internal registry 402 for the requested service in the registry and responds back to the client with the results of search using the client's request protocol).

Regarding claim 8, Graham discloses that interacting is accomplished at runtime (see at least col.9, lines 17-30, which discloses that even though the client and the requested service on the service provider may be running at different protocols the information is exchanged between the two dynamically.). .

Regarding claim 9, Graham discloses that the method as in claim 6, wherein interacting comprises: dynamic interacting (see at least col.9, lines 17-30, which discloses that even though the client and the requested service on the service provider may be running at different protocols the information is exchanged between the two dynamically). .

Regarding claims 10-12 their limitations are already covered and analyzed in claims 5, 3, and 4 above respectively.

Regarding claims 13-20, their limitations are already covered in the claims 1-12 above and are therefore analyzed and rejected on the basis of same rationale as being anticipated by Graham.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

(i) US Patent 6,026,414 to Anglin discloses a computerized method and a system receiving a request from a client for the internet services of backing up files and this information is exchanged on behalf of the client by a communication proxy, that is a proxy client with the server providing the requested services (see at least abstract, Figs 1-3 and col.5, line 4-col.8, line 13). Anglin's art can also be used to render the claimed invention as obvious.

(ii) US Publication Number 2002/0133581 A1 to Schwartz et al. discloses a system to enable a plurality of clients having a variety of protocols with the remote server (see at least abstract and page 1, paragraphs 0008-0012).

(iii) US Patent 6,708,223 to Wang et al. discloses a method for exchange of communication between a client and a server by using a proxy on the client (see at least col.2, lines 36-65 and col.6, lines 49-65).

(iv) US Patent 6,167,438 to Yates et al. discloses a system and method to provide cache server as a communication protocol proxy or the home server so that the client is sent appropriate messages pending upon the communication protocol in use (see at least col.3, lines 45-51).

(v) Gopalan, Suresh Rai, "Jini Technology "; published on the Web Cornucopia © site and last updated on December 19, 1998, extracted from the Internet Google site on 04/19/2004 discloses providing users ubiquitous access to *resources*—be they hardware devices or software objects—within a dynamic, distributed Jini system wherein a Jini service proxy is downloaded on a Jini client to enable exchange of information and access to resources.

(vi). WO 00/77634 A1 to Irani discloses a system wherein the network lookup service provides a reference to a first service running within the containment framework (144) and is operable to accept a service descriptor from the lookup service and locate a second running service within the containment framework and matches the service descriptor (see at least abstract).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yogesh C Garg whose telephone number is 703-306-0252. The examiner can normally be reached on M-F(8:30-4:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vincent A Millin can be reached on 703-308-1065. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

YCG
April 18, 2004

Yogesh C Garg
Examiner
Art Unit 3625